AMENDMENTS TO THE CLAIMS

In the set of claims within the Application, please amend each claim as hereinafter indicated.

1. (Currently Amended) An imaging coil comprising:

a ~~plurality~~ pair of end rings substantially centered around a common axis and spaced apart along the length of said axis;

~~at least one circumferentially conductive center~~ a central ring substantially centered around said axis so as to be ~~extending~~ parallel to and ~~coupled~~ situated between said ~~plurality of~~ end rings; and

a plurality of legs coupled between said ~~plurality~~ pair of end rings and said ~~at least one center~~ central ring;

wherein each of said ~~plurality of~~ end rings ~~having~~ has a ~~first~~ radius that is greater than ~~a second~~ the radius of said ~~center~~ central ring, and said central ring is adapted for being coupled to a ground reference during operation of said imaging coil.

2. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein at least one of said ~~plurality of~~ end rings is elevated.

3. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein ~~said first~~ each radius of said end rings is approximately 1.0cm greater in length than said ~~second~~ radius of said central ring.

4. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein ~~said first~~ each radius of said end rings is approximately 31.5cm.

5. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein said ~~second~~ radius of said central ring is approximately 30.5cm.

6. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein said plurality of legs ~~comprises~~ includes more than 16 legs.

7. (Currently Amended) [[A]] An imaging coil as in claim 1, said imaging coil further comprising a plurality of capacitor groupings coupled along said ~~plurality~~ pair of end rings, wherein each of said capacitor ~~grouping comprising~~ groupings includes a plurality of capacitors ~~having~~ with a group coverage area [[with]] having a width that is approximately greater than 5.0cm.

8. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein said ~~at least one center~~ central ring ~~is coupled to a ground reference and~~ has a low impedance such that said ~~at least one center~~ central ring is effectively shorted to said ground reference when coupled to said ground reference during operation of said imaging coil.

9. (Currently Amended) [[A]] An imaging coil as in claim 1, wherein said ~~plurality~~ pair of end rings, ~~at least one center~~ said central ring, and said plurality of legs are configured so as to form a birdcage style imaging coil.

10. (Currently Amended) An imaging coil comprising:

a ~~plurality~~ pair of end rings substantially centered around a common axis and spaced apart along the length of said axis;

at least one ~~circumferentially conductive center~~ central ring substantially centered around said axis so as to be ~~extending~~ parallel to and ~~coupled~~ situated between said ~~plurality of~~ end rings; and

a plurality of legs coupled between said ~~plurality~~ pair of end rings and said at least one ~~center~~ central ring[[,]];

wherein said plurality of legs ~~comprising~~ includes[[;]] (i) a first series of legs coupled between ~~a first~~ one of said end [[ring]] rings and said at least one ~~center~~ central ring[[;]], and (ii) a second series of legs coupled between ~~a second~~ the other one of said end [[ring]] rings and said at least one ~~center~~ central ring; and

wherein each of said end rings respectively has a radius that is greater than each respective radius of said at least one central ring, and at least one said central ring is adapted for being coupled to a ground reference during operation of said imaging coil.

11. (Currently Amended) [[A]] An imaging coil as in claim 10, wherein said ~~plurality~~ pair of end rings, said at least one ~~center~~ central ring, and said plurality of legs are configured so as to form a birdcage style imaging coil.

12. (Currently Amended) An imaging coil comprising:

a first plurality of end rings substantially centered around a common axis and situated along the length of said axis;

a second plurality of end rings substantially centered around said axis and situated along the length of said axis so as to be spaced apart from said first plurality of end rings;

at least one ~~center~~ central ring substantially centered around said axis so as to be ~~extending~~ parallel to and ~~coupled~~ situated between said first and second plurality of end rings; and

a plurality of legs coupled between said first and second plurality of end rings and said at least one ~~center~~ central ring; [[and]]

~~a plurality of capacitor groupings coupled along said plurality of end rings, each capacitor grouping comprising a plurality of capacitors having a coverage area with a width greater than 5.0cm~~

wherein each of said first and second plurality of end rings respectively has a radius that is greater than each respective radius of said at least one central ring, and at least one said central ring is adapted for being coupled to a ground reference during operation of said imaging coil.

13. (Currently Amended) [[A]] An imaging coil as in claim 12, wherein said first and second plurality of end rings, said at least one ~~center~~ central ring, and said plurality

of legs[[,]] ~~and plurality of capacitor groupings~~ are configured so as to form a birdcage style imaging coil.

14. (Currently Amended) An imaging coil comprising:

a plurality of end rings;

at least one ~~center~~ central ring ~~extending~~ situated both parallel to and ~~coupled~~ between said plurality of end rings[[,]] [[said]] with at least one ~~center~~ said central ring adapted for being coupled to a ground reference and having a low impedance [[such]] so that said ~~center~~ central ring is effectively shorted to said ground reference when coupled to said ground reference; and

a plurality of legs coupled between said plurality of end rings and said at least one ~~center~~ central ring.

15. (Currently Amended) [[A]] An imaging coil as in claim 14, wherein said plurality of end rings, said at least one ~~center~~ central ring, and said plurality of legs are configured so as to form a birdcage style imaging coil.

16. (Currently Amended) [[A]] An imaging coil as in claim 14, wherein said at least one ~~center~~ central ring ~~comprises~~ includes a plurality of capacitors having low impedance.

17. (Currently Amended) [[A]] An imaging coil as in claim 16, wherein said plurality of capacitors have low impedance at frequency levels of approximately greater than or equal to 120MHz.

18. (Currently Amended) [[A]] An imaging coil as in claim 14, wherein said plurality of end rings are adapted for being driven via a plurality of balun-less drive cables.

19. (Currently Amended) A magnetic resonance imaging (MRI) system having a patient bore, said MRI system comprising:

a radio frequency (RF) shield; and

an imaging coil ~~comprising[[;]]~~ at least partially surrounded by said RF shield and including

a ~~plurality~~ pair of end rings substantially centered around a common axis and spaced apart along the length of said axis;

~~at least one center~~ a central ring substantially centered around said axis so as to be ~~extending~~ parallel to and ~~coupled~~ situated between said ~~plurality~~ pair of end rings, ~~at least one of~~ said ~~at least one center~~ central ring ~~comprising~~ having a plurality of capacitors and a plurality of connections therebetween; and

a plurality of legs coupled between said ~~plurality~~ pair of end rings and said ~~at least one center~~ central ring;

wherein each of said ~~plurality of~~ end rings ~~having~~ has a ~~first~~ radius that is greater than ~~a second~~ the radius of said ~~center~~ central ring, and said central ring is adapted for being coupled to a ground reference during operation of said MRI system.

20. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, said MRI system further comprising a driver coupled to said ~~plurality~~ pair of end rings via balun-less drive cables.

21. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, wherein said ~~plurality of~~ end rings are closer to said ~~radio frequency~~ RF shield than said ~~at least one center~~ central ring.

22. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, wherein said ~~plurality of~~ end rings are farther away from the patient bore of said MRI system than said ~~at least one center~~ central ring.

23. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, wherein said plurality of legs ~~comprises~~ includes more than 16 legs.

24. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, said MRI system further comprising a plurality of capacitor groupings coupled along said ~~plurality~~ pair of end rings, wherein each of said capacitor ~~grouping comprising~~ groupings includes a plurality of capacitors ~~having~~ with a group coverage area [[with]] having a width that is greater than 5.0cm.

25. (Currently Amended) ~~A coil~~ An MRI system as in claim 19, wherein said ~~at least one center~~ central ring ~~is coupled to a ground reference and~~ has a low impedance [[such]] so that said ~~at least one center~~ central ring is effectively shorted to said ground reference when coupled to said ground reference during operation of said MRI system.

26. (Currently Amended) An imaging coil as in claim [[12]] 7, wherein said plurality of capacitors ~~are longitudinally~~ is spread out along said axis so as to form said group coverage area.